signal being read out from the plurality of memory means to be used for a motion compensation prediction of the decoded arbitrary shape picture.

20. A video decoding apparatus according to Claim 19, further comprising write switch means for selectively switching the plurality of memory means in accordance with the alpha-map signal to selectively store the background signal and the decoded arbitrary shape picture signal in the memory means.

21. A video decoding apparatus according to Claim 19, further comprising read switch means for selectively switching the plurality of memory means in accordance with the alpha-map signal to selectively read out the background signal and the decoded arbitrary shape picture signal therefrom.

22. A video decoding apparatus according to Claim 19, wherein the plurality of memory means include a plurality of first memory means for storing, respectively, decoded arbitrary shape picture signals representing different objects as well as second memory means for storing the background signal.

23. A video decoding apparatus according to Claim 22, further comprising write switch means for selectively switching the plurality of first memory means and the second memory means in accordance with the alpha-map signal to selectively store the decoded arbitrary shape picture signals corresponding to the objects and the background signal therein.

24. A video decoding apparatus according to Claim 22, further comprising read switch means for selectively switching the first memory means and the second memory means in accordance with the alpha-map signal to read out the decoded arbitrary shape picture signals and the background signal therefrom.

25. A video decoding apparatus according to Claim 22, further comprising:

motion compensation prediction means for calculating a motion compensation prediction

value on the basis of readout one of the decoded arbitrary shape picture signals and motion vector information input to the motion compensation prediction section; and

transform means for orthogonally transforming the motion compensation prediction value on the basis of the alpha-map signal to obtain an orthogonal transform coefficient of the motion compensation prediction value of a picture of the arbitrary shape indicated by the alpha-map signal.

26. A video decoding apparatus according to Claim 25, wherein the motion compensation prediction means calculates the motion compensation prediction value for each of the decoded arbitrary shape picture signals stored in the memories in accordance with the alpha-map signal.

27. A video decoding apparatus comprising:

decoder means for decoding a coded alpha-map signal for discriminating a background of an input signal and a plurality of objects thereof;

motion compensation prediction decoder means for decoding arbitrary shape pictures of the objects in accordance with the alpha-map signal to obtain a plurality of decoded arbitrary shape picture signals; and

a plurality of memory means for storing the decoded arbitrary shape picture signals, respectively, the decoded arbitrary shape picture signals being independently read out from the memory means to be used for a motion compensation prediction of each of the decoded arbitrary shape picture signals.

28. A video decoding apparatus comprising:

a decoder configured to decode a coded alpha-map signal for discriminating a background of an input signal and at least one object thereof;

a motion compensation prediction decoder configured to decode an arbitrary shape

picture of the object in accordance with the alpha-map signal to obtain a decoded arbitrary shape picture signal; and

a plurality of memories configured to store a background signal of the object and the decoded arbitrary shape picture signal, respectively, the decoded arbitrary shape picture signal being read out from the memories to be used for a motion compensation prediction of the decoded arbitrary shape picture signal.

11. 29. A video decoding apparatus according to Claim 10 28, further comprising a write switch section configured to selectively switch the memories in accordance with the alpha-map signal to selectively store the background signal and the decoded arbitrary shape picture in the memories.

12. 30. A video decoding apparatus according to Claim 10 28, further comprising a read switch section configured to selectively switch the memories in accordance with the alpha-map signal to selectively read out the background signal and the decoded arbitrary shape picture signal therefrom.

13 10 31. A video decoding apparatus according to Claim 28, wherein the memories include a plurality of first memories configured to store, respectively, decoded arbitrary shape picture signals representing different objects as well as a second memory configured to store the background signal.

14. 32. A video decoding apparatus according to Claim 13 31, further comprising a write switch section configured to selectively switch the first memories and the second memory in accordance with the alpha-map signal to selectively store the decoded arbitrary shape picture signals corresponding to the objects and the background signal therein.

15. 33. A video decoding apparatus according to Claim 13 31, further comprising a read switch section configured to selectively switch the first memories and the second memory in accordance

with the alpha-map signal to read out the decoded arbitrary shape picture signals corresponding to the objects and the background picture therefrom.

34. A video decoding apparatus according to Claim 31, further comprising:

a motion compensation prediction section configured to calculate a motion compensation prediction value on the basis of readout one of the decoded arbitrary shape picture signals and motion vector information input to the motion compensation prediction section; and

a transform section configured to orthogonally transform the motion compensation prediction value on the basis of the alpha-map signal to obtain an orthogonal transform coefficient of the motion compensation prediction value of a picture of the arbitrary shape indicated by the alpha-map signal.

35. A video decoding apparatus according to Claim 34, wherein the motion compensation prediction section calculates the motion compensation prediction value for each of the decoded arbitrary shape picture signals stored in the memories in accordance with the alpha-map signal.

36. A video decoding apparatus comprising:

a decoder configured to decode a coded alpha-map signal for discriminating a background of an input signal and at least one object thereof;

a motion compensation prediction decoder configured to decode arbitrary shape pictures of objects in accordance with the alpha-map signal to obtain decoded arbitrary shape picture signals; and

a plurality of memories configured to store the decoded arbitrary shape picture signals, respectively, the decoded arbitrary shape picture signals being independently read out from the memories to be used for a motion compensation prediction of each of the decoded arbitrary shape picture signals.

17.
37. A video decoding method comprising:

decoding a coded alpha-map signal for discriminating a background of an input signal and at least one object thereof;

decoding an arbitrary shape picture of the object in accordance with the alpha-map signal to obtain a decoded arbitrary shape picture signal; and

storing a background signal representing the background and the decoded arbitrary shape picture signal in a plurality of memories, respectively, the decoded arbitrary shape picture signal being read out from one of the memories to be used for a motion compensation prediction of the decoded arbitrary shape picture signal.

20. 19
38. A video decoding method according to Claim 37, further comprising selectively switching the memories in accordance with the alpha-map signal to selectively store the background signal and the decoded arbitrary shape picture signal in the memories.

21. 19
39. A video decoding method according to Claim 37, further comprising selectively switching the memories in accordance with the alpha-map signal to selectively read out the background signal and the decoded arbitrary shape picture signal therefrom.

22. 19
40. A video decoding method according to Claim 37, wherein the memories include a plurality of first memories for storing, respectively, decoded arbitrary shape picture signals representing different objects as well as a second memory for storing the background signal.

23. 22
41. A video decoding method according to Claim 40, further comprising selectively switching the first memories and the second memory in accordance with the alpha-map signal to selectively store the decoded arbitrary shape picture signals corresponding to the objects and the background signal therein.

24. 22
42. A video decoding method according to Claim 40, further comprising selectively switching the first memories and the second memory in accordance with the alpha-map signal